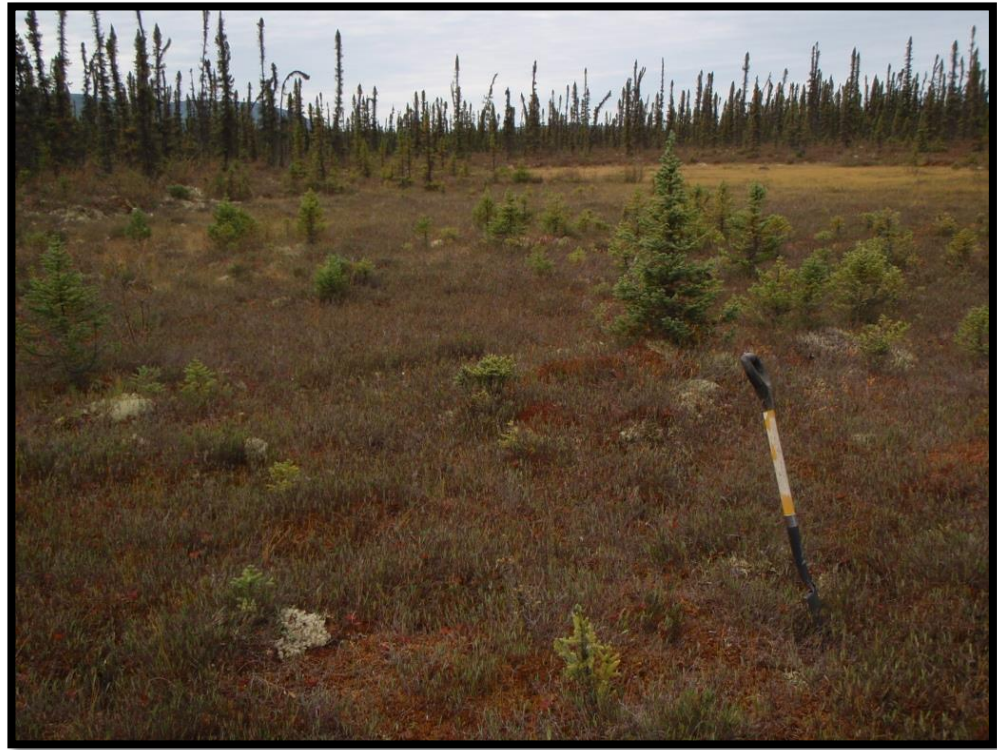


Ecological Site Description ID:		R231XY158AK	
Ecological Dynamics of the Site:			
<p>This boreal ecological site occurred on depressions of plains and was attributed to a thermokarst event. In this ecological site, underlying permafrost melts, causing the ground to slump and form a wet depression. These wet depressions were considered stable open water bodies with little or no hydrologic input and, as a result, succession was considered similar to that of a bog. With time and organic matter accumulation, permafrost eventually reoccupies soil and sites progress from open water to scrubland. If succession exceeds 150 years, as was presumed with thermokarst succession within the study area, ecological sites are split. Therefore, R231XY150AK details the first part of thermokarst succession on plains within the study area, while R231XY158AK details the second part of thermokarst succession. Prior to thermokarst, sites likely resemble ecological site R231XY128AK. For community phase 1.1, soils were classified as cryofibrists and were composed of organic material over silty alluvium</p>			
State and Transition Diagram:			
<div><div>1. Reference State</div><div><div>Boreal scrub peat frozen plains</div><div>R231XY158AK</div></div><div><div><div>1.1 (HCPC) Bog rosemary-leatherleaf-<i>Sphagnum</i> moss scrubland</div><div>1.2a</div><div><div>1.2 (2KE) <i>Sphagnum</i> moss-sedge herbaceous community</div></div></div></div></div>			
State ID Number:	1	State Name:	Reference
State Narrative:	<p>The ecological site description details the 2nd half of thermokarst succession on plains within the study area. Phase 1.2 vegetative community was a <i>Sphagnum</i> moss meadow. Phase 1.1 vegetative community was a scrubland.</p> <p>Stunted and regenerative tree are defined to be less than 15’ in height. Medium shrubs are defined to grow 3-10’ in height, low shrubs are defined to grow 8” – 3’ in height, and dwarf shrubs are defined to grow less than 8” in height.</p>		

Photo 1.1



Community Phase Number:

1.1

Community Phase Name:

Bog rosemary-leatherleaf-*Sphagnum* moss scrubland

Community Phase Narrative:

This phase was dominated by low scrubs. Both stunted and regenerative *Picea mariana* was observed in this phase as a minor vegetative component. Dwarf and low shrubs were observed and the most common shrubs were *Andromeda polifolia* and *Chamaedaphne calyculata*. Graminoids, forbs, and lichens were present but as minor vegetative components. *Sphagnum* moss had greater than 90% cover in sampled plot. This phase had one observation.

#### Community Pathways

Pathway Number

Pathway Name & Description

1.1 a

With time and absence of thermokarst, climax phase may transition to ecosite R231XY128AK.

Photo 1.2



Community Phase Number:

1.2

Community Phase Name:

*Sphagnum* moss-sedge herbaceous community

Community Phase Narrative:

This phase was dominated by *Sphagnum* moss which was estimated to cover greater than 95% of sampled plots. Trees were not observed in this phase. Shrub cover was limited and the most common species were *Chamaedaphne calyculata* and *Andromeda polifolia*. Graminoids were a major component of vegetation covering 40% of plots and were a mixture of *Carex* and *Eriophorum species*. *Comarum palustre* was the only forb observed but occurred as a minor vegetative component. This phase had two observations.

Community Pathways

Pathway Number

Pathway Name & Description

1.2 a

Phase 1.2 (above) was similar to phase 1.1 for ecological site R231XY150AK but differed in that *Sphagnum* moss dominated sites. As a result, phase 1.2 had less overall sedge cover and sedge litter.